



Virtual Training Workbook

Estimating & Quoting
Professional Edition

Company Maintenance Settings

Inventory Defaults

- ② Source of information for new parts, purchased and manufactured
- ② Decimal Places – number of decimal places displayed throughout E2 for quantity and dollar amounts
 - Can be set anywhere between 2 and 5
- ② Billing Rate – default Billing Rate assigned to new Estimates created in E2
 - Amount to charge for the use of Work Centers
 - Used to determine sales price for manufactured parts
- ② Quantity Breaks – default breaks on new manufactured parts

Quoting Defaults

- ② Provides defaults for Quotes and Estimates
- ② Quote text pulls forward to Work Orders and Acknowledgments (Order Level)
- ② Interface Options – designate format for external information that can be import to populate Bill of Material

Key Components of Estimates

Material

- ② Bill of Material can have 2 types of parts present:
 - Purchased
 - Parts purchased from vendors
 - Include raw material and hardware
 - Carry vendor related information and pricing
 - Purchasing Factor allow material to be purchased in one unit and used/stocked in another
 - ✓ $\text{Purchasing Factor Equation} = \text{Purchasing UOM} / \text{Stocking UOM}$
 - Manufactured
 - Parts made in shop
 - Manufactured parts within a BOM referred to as subassemblies
 - ✓ Carry own production process
 - ✓ Can have multiple generations of manufactured parts in overall production

Work Centers

- ② Areas where work is performed
 - Means of tracking costs, capacity and sales related information
 - Could represent a single machine, a group of like machines, work cell, personnel groups
- ② Operation Codes provide details of work being performed at Work Center
- ② Billing Rates help determine sales value of time placed against Work Center

Operation Code Details

- ② **Machines Run By Operator:** Represents the number of machines the Employee can run at the same time; System divides anticipated Labor Costs for Cycle Time by this value; Does not split Setup Cost or any Burden Cost; Will see full number of hours listed on reports in order to capture Burden; Full amount of labor used for Sales Values
- ② **Machines Job Being Run On:** Represents the number of machines work is expected to be spread across; Setup time (& associated cost) is increased (multiplied) in anticipation of additional machines; Also impacts scheduling considerations (Not covered here)
- ② **Efficiency:** Impacts scheduling; System assumes something prevents work from being performed at optimal efficiency & increases expected (SCHEDULED) Cycle Time; Does NOT change actual Estimated Times
- ② **Team Size:** “Flip Side” of Machines Run By Operator; Represents the number of people it takes to perform work; Cycle Labor Costs are increased (multiplied) by this value
- ② **Unattended Operation:** If enabled (YES) Labor Cost not captured for Cycle Time; Assumes operator starts work and then leaves machine alone until finished; Different than Machines Run By Operator that assumes the operator comes back to machine/splits time between machines
- ② **Scrap Percent:** Represents anticipated scrap that will lead to additional parts being made; Minimum of one additional Part regardless of percentage listed, could be more based on Qty. Ordered and Scrap %; **IMPORTANT – Scrap is cumulative across the Router**
 - Consider leaving Scrap % blank on Operation Codes and setting ONE Scrap % for entire Estimate; Recommend using same step each time to make it easier to find

Define a Purchased Part

General Tab

- ② Part Number must be unique and can consist of up to 30 alpha numeric characters
- ② Description prints next to Part Number throughout the software
- ② Pricing Unit of Measure is how material will be stocked, used and sold
- ② Product Code allows grouping of material and used for billing purposes since it carries the Sales GL Code
- ② Inventory GL Code is the asset General Ledger Code used on Inventory Summary and WIP Summary
- ② Price Calculation Method for Purchased items is Cost + Markup since Vendor provides cost and you provide markup
 - Will automatically populate with details provided in the Purchasing Section
 - Price based on underlying cost provided by Vendor
 - Each quantity break may have different markup percent

Inventory Tab

- ② Stocking Cost used if Standard Cost is selected as the Inventory Allocation Method
- ② Re Order Information is used to keep safe levels of Inventory on Hand
- ② Part Weight is entered in pounds and useful on Bill of Material and Packing Lists
- ② Inventory Information
 - Quantity on Hand – available items in asset account, ready for use
 - Quantity on Reserve – items posted to jobs, part of WIP Account
 - Quantity in Process – items currently in production, mainly used for manufactured items
- ② Information in Grid displays available Quantities, Location and Unit Cost

Purchasing Tab

- ② Primary Vendor will populate on Purchase Order for the Part
 - Secondary and Alternate used for information purposes only
- ② Purchasing GL Code is expense account used on Purchase Orders, pulls from primary Vendor
- ② Lead Time (Days) is average number of days it takes Vendor to deliver product
- ② Purchasing Unit of Measure is how material is purchased
- ② Purchasing Factor allows conversion of purchasing unit to stocking unit if different
 - Purchasing Factor equation = Purchasing Unit / Stocking Unit
- ② Quantity Breaks Grid contains quantity breaks and costing provided by primary Vendor
 - Used for Estimating purposes and populates on Purchase Orders

Exercise #1: Create a Purchased Part

Inventory | Inventory Items

- ② Click **New**
- ② Part Number = **1018CR-3.25X72.00**
- ② Description = **1018 Cold Finish Mild Steel Round – 3.25” Diameter, 72” Length**
- ② Pricing Unit of Measure = **Bar**
- ② Product Code = **P-Steel**
- ② Inventory GL Code = **1400**

Inventory Tab

- ② Stocking Cost = **\$437.56**
- ② Part Weight = **168.95**

Purchasing Tab

- ② Primary Vendor = **Jorgensen**
- ② Purchasing Unit of Measure = **Bar**
- ② Qty. Breaks
 - **1 = \$438.36**
 - **5 = \$429.50**
 - **20 = \$418.72**

Part Notes

- ② **Please include material specifications with PO**

General Tab

- ② Markup = **15**
- ② Click **Calculate**
- ② Click **OK** to save & close

Creating Estimates

- ② Located under Quoting
- ② Manufactured items
 - Items made in shop
 - Subassemblies – manufactured items within BOM
- ② Manufactured parts are a subset of inventory items
- ② Ability to import Bill of Material from external sources (e.g. AutoCad, Solidworks)

General Tab

- ② Very similar to general tab of Purchased Parts
 - Part Number must be unique
 - Description appears with part number
- ② Quantity Breaks pull from company maintenance (inventory defaults)
- ② Billing rate selected on the engineering tab determines what dollar amount to use for determining the value of labor
- ② Cost + Markup uses costs as base and expects use to enter desired markup
- ② Billing rate method uses pre-marked up values for various components of estimate
- ② If prices are entered manually, must lock prices to keep them from recalculating automatically

Engineering Tab

- ② Part Weight used on packing lists to determine shipping weight
- ② Commission percent treated as cost and sales value
 - Estimating purposes ONLY
 - Pulls from customer code if one selected
- ② Miscellaneous Tooling Charge is a flat fee charged to customer independent of quantity
 - Will not appear on quotes, orders, and invoices if dollar amount left blank

Materials Tab

- ② Can contain both purchased and manufactured parts
- ② Undefined parts may be added to bill of material
- ② It is possible to estimate the use of decimal quantities of material
 - Material cannot be Stocked in decimal quantities
 - Can print 2 versions of bill of material
 - Standard
 - Exploded – shows all generations of material when subassemblies are included
- ② Bill of material reports can be printed for designated quantities

Routing Tab

- ② Anticipated steps needed to make the part / provide service
- ② Step Types can be either
 - Work – steps within shop
 - Vendor – outside service step
- ② Editing step details does not impact Work Center or Operation Code
- ② Be mindful of Setup and Cycle units
- ② If work center can perform multiple functions, may want to leave default operation code blank and select on router
- ② If anticipated cost (burden and/or labor) are edited on a routing step, consider editing billing rates for setup and cycle as well
- ② Routing steps can be easily edited

Exercise #2: Create Single Level Estimate

Quoting | Estimating

- ② Click **New**
- ② Part Number = **BC-3.0-NP**
- ② Description = **3" Nickel Plated Bearing Cover**
- ② Product Code = **M-Machine**
- ② Inventory GL Code = **1410 Finished Goods**

Engineering Tab

- ② Revision = **1.0**
- ② Revision Date = **Today's date**
- ② Drawing Number = **B-587-14C**
- ② Part Weight = **3.52**
- ② Commission Percent = **4.00**

Materials Tab

- ② Part Number = **1018CR-3.25X72.00**

Routing Tab

<u>Step No</u>	<u>Step Type</u>	<u>Work Center</u>	<u>Operation</u>	<u>Setup</u>	<u>Cycle</u>
10	WORK	KKS 400	SAW	.15H	3M
20	WORK	SML LATHE	TURN	.50H	5M
30	WORK	CINT17	DRILL	.50H	5M
40	WORK	INSPECTION	INSP-PROD	.00H	1M
50	VEND				
		▪ Vendor Code = ALEXANDRIA			
		▪ Description = Nickel Plating			
		▪ Cost = \$2.50 EA (all quantities)			
60	WORK	INSPECTION	INSPECT-FIN	.00H	1.M

Part Notes Tab

- ② **All items should be packaged separately**

General Tab

- ② Price Calculation Method = **Billing Rate**
- ② Click **Calculate**
- ② Click **OK** to save & close

Exercise #3: Create Multi Level Estimate

Quoting | Estimating

- ② Click **New**
- ② Part Number = **BCA-3.0**
- ② Description = **3” Bearing Cover Assembly**
- ② Product Code = **M-Fab**
- ② Inventory GL Code = **1410 Inventory – Finished Goods**

Engineering Tab

- ② Customer Code = **Carter**
- ② Revision = **1.10**
- ② Drawing Number = **F-256-13A**
- ② Part Weight = **4.90**
- ② Commission Percent = **4.50**
- ② Miscellaneous Tooling Charge = **\$100.00**
- ② Miscellaneous Tooling Description = **Setup Charge**

Materials Tab

- ② Part Number = **BC-3.0-NP** Quantity = **1**
- ② Part Number = **G25BB-1.0-C** Quantity = **1**
- ② Part Number = **BCH-3.0** Quantity = **1**
- ② Part Number = **SS6-18-0.75-PPAZ** Quantity = **4**

Routing Tab

Step No	Step Type	Work Center	Operation	Setup	Cycle
10	WORK	CNC MILL	MILL ROUGH	.25H	8M
20	WORK	ASSEMBLY	ASSEMBLE	.00H	2M
30	WORK	WELDING	WELD	.50H	5M
40	WORK	OD GRIND	GRIND	.00H	4M
50	WORK	INSPECTION	INSPECT-FIN	.00H	300P

General Tab

- ② Price Calculation Method = **Billing Rate**
- ② Click **Calculate**
- ② Click **OK** to save & close

Quotations

- ② Quotes are sales driven and can be created from defined or undefined parts
- ② Add to Calendar option creates an entry in Contact Management on the Follow Up Date
 - Entry is made for the User ID associated with the quoted by employee assigned on the header tab
- ② Use of search feature is encouraged to locate items to add to Quote, prevents data entry mistakes
- ② Flush discount percent utility will update all line items present on the quote at one time
- ② Change status utility will update all line items present on the quote at one time
 - Must click “Change” button to complete the process
- ② Quote details can pull from various sources onto Quote

Sources of Information on Quote

From Estimate

- ② Description – Can be edited if the Customer wants or needs customized parts
- ② Quantity Breaks – If more than one Quantity Break is present, Quote will not be able to print a total value (would not know what dollar value to use nor for how many; Dollar displayed on Quote for the Line Item is simply the value associated with the First Break; Look at Quote Total)
 - Each quantity and the associated dollar value will display
 - Can edit the dollar values (Good way to provide different pricing to various Customers; **Round amounts as noted above**)
- ② Revision – Changing it here would not change it on the Estimate (True of any changes we make)
- ② Tooling Charge and Description – If you did not want the charge to show up on EVERY Quote/Order you could add it here (Edit Miscellaneous Charge dollar amount – see above)
- ② Comments Tab – Part Notes from Estimate; Will display on Travelers as Job Notes

From Company Maintenance / Quote Defaults Tab

- ② Delivery
- ② Misc./Tooling Description

From Customer Table

- ② FOB (Freight On Board) – Will pull from Quote Defaults if Location Code of Customer does not have value listed
- ② Commission Percent – Actually pulls from Sales ID associated with Customer
- ② Discount Percent – Causes dollar value to display at discounted amount on Quote the Customer receives; Displays “full” amount on the Quote record directly
- ② Work Code – Means of filtering reports and carries accounting information for AR Billing

In addition to the fields in the Line Item Details, the Customer Code also provides information for the Header Tab

- ② Location – Default Location code listed; Location Code provides address information, Phone and Fax Numbers, (Customer) Contact, Shipping Code / Ship Via, and Territory
 - Selecting a different Location Code can provide different values
 - If Location code does not contain information system will try to pull from elsewhere, often from other parts of Customer record
- ② Currency Code – Only required field present on Quote; Provides Exchange Rate
 - Many fields become required further “downstream”, especially if accounting module is used (Terms Code and Tax Code for example)
- ② Sales ID – Provides Commission Percent
- ② Terms Code and Tax Code

Status Options on Quote

- ② Pending – Default Status of any new Line Item, indicates we are waiting for Customer’s decision
- ② Requested – Manually set, indicates the Customer specifically requested this item
- ② Won – Set by the system when a Part is pulled onto an Order from the Quote; Can be manually set
- ② Lost – Manually set, indicates the Customer actively rejected the item
- ② Expired – Set by the system when the Quote reaches the Expires On Date if Status is Pending or Requested at the time
- ② No Quote – This option is manually set; Use this to indicate you decided not to send a Quote to the Customer (or non-customer if free form option used)

Exercise #4: Create New Quote

Quoting | Quotations

- ② Click **New**
- ② Customer Code = **Groveport**

Add Parts from Part File

- ② Select **Part Number** as Search Criteria
- ② Click **Search**
- ② Enter **4** and click **OK**
- ② Select Part Number = **425-26AC**
- ② Click **OK**

Line Item Details

- ② Edit Price Breaks by rounding to whole dollars
 - Each break should be different
- ② Miscellaneous Tooling Charge = **\$150.00**
- ② Miscellaneous Tooling Description = **Setup Charge** (overwrite existing)

Add Multiple Parts from Part File at once

- ② Select **Product Code** as Search Criteria
- ② Click **Search**
- ② Enter **M** and click **OK**
- ② Select the following
 - Part Number = **BC-3.0-NP**
 - Part Number = **782202**

Add Parts to Quote from Another Quote

- ② Click **Copy Line Items**
- ② Select **Part Number** as Search Criteria
- ② Click **Search**
- ② Enter **1B** and click **OK**
- ② Select Quote for Customer = **CPI**
- ② Click **OK**
- ② Select Part Number = **1B278-P**
- ② Click **OK**
- ② Answer **Yes** to prompt

Apply Discount

- ② Click **Flush Discount Percent**
- ② Enter **10** and click **OK**

Change status of all line items

- ② Select **Requested** from dropdown menu
- ② Click **Change** button
- ② Answer **Yes** to prompt
- ② Click **OK** to save & close

Exercise #5: Create Free Form Quote

Quoting | Quotations

- ② Click **New**
- ② Select **Free Form Customer**
- ② Customer Code = **Atlas**
- ② Customer Name = **Atlas Machines**
- ② Part Number = **Coupling Adapter** (enter manually)
- ② Part Description = **2" Steel Variable Coupling Adapter**

Line Item Details

- ② Change quantity and pricing breaks:
 - Qty. = **1** **\$85.00**
 - Qty. = **100** **\$75.00**
 - Qty. = **1000** **\$60.00**
- ② Revision = **1.0**
- ② Misc./Tooling Charge = **\$150.00**
- ② Misc./Tooling Description = **Setup & Processing Fee**
- ② Work Code = **General**
- ② Comments Tab = **Check with Engineering for addendum before beginning work**
- ② Click **OK** to save & close details screen

Header Tab

- ② Line 1 = **123 Main St**
- ② Zip/Postal Code = **45241**
- ② Shipping Code = **Roadway**
- ② Phone = **513-123-4567**
- ② Click **OK** to save & close

Related Reports

Cost Estimate

- ② Estimate Recap is most comprehensive report for preproduction analysis

Quotation Summary

- ② Allows review of existing quotes regardless of status

Price Catalog

- ② Provides sales values for selected parts
 - Can include purchased and manufactured items
 - Can markup sales values without impacting parts information

Contact Information

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